

## Stephen S. Intille

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mHealth Research Group: <http://mhealthgroup.org>

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### Research Interests

Computationally detecting and modeling health-related behavior using interactive systems; combining wearable sensing and user interface systems to support preventive medicine and personal, behavioral informatics; novel technologies and algorithms for real-time and longitudinal measurement of behavior; persuasive user interfaces for motivating behavior change; sensor-enabled mobile health technologies; context-aware ecological momentary assessment; experimental ubiquitous and mobile computing; active transportation (via bicycle).

### Education

#### **Massachusetts Institute of Technology, Cambridge, MA**

The Media Laboratory  
Ph.D. Media Arts and Sciences (September 1999)  
Dissertation title: Visual recognition of multi-agent action  
Area of specialization: computer vision action recognition and interactive vision systems

#### **Massachusetts Institute of Technology, Cambridge, MA**

The Media Laboratory  
S.M. in Media Arts and Sciences (August 1994)  
Thesis title: Tracking using a local closed-world assumption  
Area of specialization: computer vision

#### **University of Pennsylvania, Philadelphia, PA (May 1992)**

School of Engineering and Applied Sciences  
B.S.E. in Computer Science and Engineering, *summa cum laude*

### Professional Appointments and Research Experience

#### **Northeastern University, Boston, MA**

(September 2010-)  
Associate Professor, College of Computer and Information Science &  
Dept. of Health Sciences, Bouvé College of Health Sciences  
Director of the mHealth Research Group (<http://mhealthgroup.org>)  
Co-Founder and Director of the Personal Health Informatics Doctoral Program (<http://phi.neu.edu>)

#### **Massachusetts Institute of Technology, Cambridge, MA**

Visiting Research Scientist (September 2010-12)  
Changing Places Research Group, MIT Department of Architecture

#### **MIT House\_n Consortium, Cambridge, MA**

(September 1999 – August 2010)  
Research Scientist with PI status. Research and teaching on topics related to computational sensing for health technologies, interactive environments, and future human-computer interface design. Supervision of postdoctoral associates, technical staff, and graduate and undergraduate students. Technology Director of the House\_n Consortium (since 2002). Grant-writing and corporate

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fundraising for research efforts and support of the industry/academic consortium. MIT Principal Investigator on NSF, NIH, Intel, CIMIT, Microsoft Research, IBM, and Robert Wood Johnson Foundation grants.

### **MIT Media Laboratory, Cambridge, MA**

(September 1992 - August 1999)

Research Assistant. Published research in computer vision and interactive vision systems. Advisor: Prof. Aaron Bobick.

### **Penn General Robotics and Sensory Perception (GRASP) Laboratory**

(Summer 1991)

Research Assistant. Developed a visual interface for a range image recognition system. Advisor: Prof. Ruzena Bajcsy.

## Grants

NU Principal Investigator, Lead Temple (PI: Hiremath) (NIH) **“mHealth-based Just-In-Time Adaptive Intervention to Improve Physical Activity Levels of Individuals with Spinal Cord Injury.”** A five-year project studying how to integrate a mobile health (mHealth) JITAI with existing PA intervention programs to motivate health-related behavior change in individuals with spinal cord injury (SCI). A secondary objective of this study is to extend existing algorithms that use commercial wearable technology to robustly detect PA behaviors to facilitate the delivery of tailored just-in-time actionable feedback and PA recommendations for individuals with SCI. (2021).

Principal Investigator (co-PI John) (NIH) **“Accelerating the Development of Novel Methods to Measure 24-hr Physical Behavior.”** A four-year project is to develop novel methods to measure 24-hour physical behavior, as well as a procedure via which those methods can be compared to others. We aim to help the research community to converge on methods that use the devices to accurately measure physical activity type and intensity, sedentary behavior and posture, and sleep in adults (2020).

NU Principal Investigator, Lead Temple (PI: Hiremath) (NIDILRR) **“Harnessing Social Networks to Personalize Sensor-Driven, Just-In-Time Physical Activity Interventions for Individuals with Spinal Cord Injury.”** A three-year project studying how to structure messaging to effectively integrate a mobile health (mHealth) just-in-time adaptive intervention (JITAI) with existing PA intervention programs to motivate health-related behavior change in individuals with spinal cord injury. We will extend our pilot work to evaluate the integration of a JITAI with a web-based 14-week PA intervention program that uses algorithms for automatic detection of physical activity and sedentary behavior of SCI wheelchair users (2020).

NU Principal Investigator, Lead Univ. of Chicago (PI: Hedeker) (NIH), **“Novel Statistical Models for EMA Studies of Physical Activity.”** A four-year project to make several important extensions to multilevel models for estimating subject-level effects of time-varying variables and test those extensions by conducting secondary analyses of data from three federally- and foundation-supported intensive longitudinal data collection studies. We will also enhance the usability, utility, and dissemination of the MixWild software and user interface (2019).

Co-Investigator (PI: Bickmore/ Paasche-Orlow) (NSF), **“SCC: Smart and Connected Churches for Promoting Health in Disadvantaged Populations.”** A four-year project to use virtual conversational agents, sensor-enabled mobile technologies, and AI in a research infrastructure designed to assist church congregations with providing health and wellness support to their members (2018).

Principal Investigator, Collaboration with University of Southern California (co-PI: Dunton) (NIH/NHLBI), **“Microtemporal Processes Underlying Health Behavior Adoption and Maintenance.”** A four-year project to use mobile technologies to collect data on micro-temporal mechanisms underlying the adoption and maintenance of physical activity, limited sedentary time, and sufficient sleep duration in emerging adults, and build more predictive health behavior theories and inform personalized behavior interventions to reduce obesity and improve public health (2018).

NU Principal Investigator, Lead Tufts University (PI: Selker) (NIH NCATS), “**Clinical and Translational Science Institute.**” A five-year project to serve as Associate Director of mHealth Informatics for the Tufts CTSI, which provides resources, services, and education to support the entire spectrum of clinical and translational research to help meet the promise and the public’s needs of biomedical science, including systems using data science (2018).

Principal Investigator (NIH/QMedic), “**NHANES Cloud Data Processing.**” An eleven-month project to run machine learning and data summarization algorithms on the 18,000+ person NHANES dataset, using the AWS infrastructure (2017).

Principal Investigator (NIH/NIBIB), “**Crowd-Sourced Annotation of Longitudinal Sensor Data to Enhance Data-Driven Precision Medicine for Behavioral Health.**” A two-year project to develop a game-based crowdsourcing system to facilitate annotation of accelerometer and precision medicine mobile datasets to support research (2016).

NU Principal Investigator, Lead University of Southern California (PI: Henwood) (NIH/NIMH), “**Understanding HIV Risk Environment for Youth in Supportive Housing.**” A three-year project to develop and use a context-sensitive ecological momentary assessment system to gather data on HIV risk among youth in supportive housing (2016).

NU Principal Investigator, Lead Temple University (PI: Hiremath) (Craig Neilsen Foundation), “**Just-In-Time Adaptive Feedback Systems to Assist Individuals with SCI.**” A two-year project to develop a sensor-driven, just-in-time measurement and intervention system to help spinal cord injury patients (2016).

Co-Investigator (PI: Fulmer) (NIH/NINR P20), “**Northeastern Center for Technology in Support of Self Management and Health (NCTech).**” A five-year project to develop nursing research expertise and effective interventions in the area of self-management for vulnerable older adults at risk for poor health outcomes. This mission will be supported with the use of state-of-the-art technology to facilitate the timeliness, scalability and effectiveness of multi/transdisciplinary self-management interventions (2014).

NU Principal Investigator, Lead University of Southern California (PI: Hedeker/Dunton), “**Novel Statistical Models for EMA Studies of Physical Activity.**” A three-year project to develop and test novel multilevel statistical methods to examine the effects of subject-level parameters (variance and slope) of time-varying variables in ecological momentary assessment (EMA) studies of physical activity (2014).

Principal Investigator (Google, Inc.), “**Modeling temporally-dense microinteractions to promote health behavior change.**” A one-year project to explore how heads-up displays such as Google Glass can be used to support health behavior measurement and interventions using microinteractions (2013).

NU Principal Investigator, Lead University of Southern California (PI: Dunton) (NIH/NHLBI R01), “**Maternal Stress and Children’s Obesity Risk.**” A five-year project to determine whether levels of stress among working mothers are related to increased obesity risk in their children using novel methods such as ecological momentary assessment (2013).

NU Principal Investigator, Lead Everyfit, Inc. (PI: Albinali) (NIH/NCI Contract), “**SPADES: A System for Encouraging Adoption of New Methods for Activity Monitoring.**” A two-year project to develop an open-source, uncomplicated cloud-based software service that makes it extremely easy for a researcher to gather and analyze high-resolution behavioral data within one hour of data capture (2013).

Co-Investigator (PI: Barrett) (Northeastern University Tier 1 Research Grant), “**Brain-Computer Interface for Signaling Changes in Psychological States.**” A one-year project to establish the

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feasibility of using a portable fNIRS device to measure large changes in emotional state and trigger mobile context-sensitive ecological momentary assessment. (2013).

Consultant and Co-Investigator, Lead EveryFit, Inc. (PI: Albinali) (NIH/NCI Contract), **“Development of Algorithms for Detection of Physical Activity Patterns from Wrist-worn Triaxial Accelerometers.”** A one-year project to collect data and test the performance of algorithms to detect ambulation from wrist-worn accelerometers. (2012).

Co-Investigator (PI: Franko) (Northeastern University Tier 1 Research Grant), **“Mobile Technology for Obesity Prevention in Racially and Ethnically Diverse Young Adults.”** A one-year project to establish an evidence-based program for obesity prevention in students of color who are at risk for unhealthy weight gain using mobile technology through: (1) cell phone camera use for self-monitoring of eating behaviors; and (2) text messaging to enhance goal adherence to healthy eating behaviors. (2012).

Co-Investigator (PI: Lincoln) (Northeastern University Tier 1 Research Grant), **“Exploring the use of innovative technologies in behavioral health.”** The goal of this one-year project is to support the Northeastern Mental Health Working Group to (1) host a symposium on the Innovative Use of Technology in Behavioral Health and to (2) conduct preliminary research on the factors that might facilitate and those that might serve as barriers to the adoption, implementation and effectiveness of interventions involving novel technology in behavioral health care (2012).

Northeastern Principal Investigator, Lead Case Western Reserve Medical School (PI: Spilsbury) (NIH R21), **“Peer and family effects on urban African-American children’s sleep.”** The goal of this two-year project is to develop and test technology for semi-automatically gathering information about environmental factors that might impact sleep quality (2012).

Co-Principal Investigator (with G. Dunton at USC) (NIH R21), **“Using Mobile Phones to Reduce Missing Data in Youth Activity Monitoring Studies.”** The goal of this two year study is to provide a low-cost way to use common mobile phones to reduce and explain missing and ambiguous data collected in studies using objective monitors to measure physical activity and sedentary behavior in adolescents (2012).

Co-Investigator (PI: Bickmore) (CIMIT Innovation Grant), **“Optimizing Hospital Workflow and Quality through Patient Engagement.”** A one-year project to improve inpatient care workflow through the development of a patient-facing technology platform, the “Hospital Buddy,” that will use Wocket accelerometers to detect behavior related to sleep (2011).

MIT Principal Investigator, Lead Duke Medical School (PI: Svetkey) (NIH U01), **“Cellphone Intervention Trial for Young Adults (CITY).”** A five-year study to develop and evaluate (in a randomized clinical trial) sensor-enabled mobile phone technology to assist young adults with long-term weight loss and weight management (2009).

Principal Investigator (NIH GEI Opportunity Fund Program), **“Encouraging GEI Activity Monitor Adoption: Demonstrating Device Equivalency.”** A one-year study using custom-designed mechanical shakers and pattern recognition algorithms to demonstrate how phones can be used to produce output nearly equivalent to existing physical activity monitors (2009).

MIT Principal Investigator, Lead USC Medical (PI: Dunton) (Robert Wood Johnson Foundation), **“Development of a Time Use Intervention Using Mobile Phones to Promote Physical Activity in Youth.”** Several projects to explore the use of experience sampling on mobile phones for physical activity data gathering in children and adults (2009).

MIT Principal Investigator, Lead RTI International (PI: Rhodes) (NIH NIEHS), **“Development of Optimal Monitor Placement and Accelerometer Algorithms for Personal Contaminant Sensor Platforms with a Focus on Children’s Activities.”** A one-year NIH-funded project with RTI International, Stanford School of Medicine, UC San Diego, LDEO/Columbia, and Battelle/PNNL to

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study the use of accelerometry-based motion monitoring to improve a wearable, personal contaminant sensing in children (2009).

MIT Principal Investigator, Lead RTI International (PI: Rhodes) (NIH NIEHS), "**Development of Optimal Monitor Placement and Accelerometer Algorithms for Personal Contaminant Sensor Platforms.**" A one-year NIH-funded project with RTI International, Stanford School of Medicine, UC San Diego, LDEO/Columbia, and Battelle/PNNL to study the use of accelerometry-based motion monitoring to improve a wearable, personal contaminant sensing in adults (2008).

Principal Investigator (NSF), "**CRI:CRD Development of Longitudinal Home Activity Datasets as a Shared Resource.**" A three-year study to develop portable sensor tools that can be used in typical homes to collect data for computer science and health research, as well as to generate shared datasets on home activity from actual homes to be used as a community resource to accelerate research (2007).

Principal Investigator (NIH NHLBI U01), "**Enabling Population-Scale Physical Activity Measurement on Common Mobile Phones.**" A four-year study with Stanford School of Medicine to create novel health monitoring tools for mobile phones. Includes a supplement to develop mobile context-sensitive ecological momentary assessment software for mobile phones ("Extensible Platform for Implementing Experience Sampling on Mobile Phones") (2007).

Principal Investigator (Intel AIM Grant Program), "**AIM Proposal: End-User-Driven Training of Activity Recognition Algorithms.**" A three-year study on the use of in-home context sensing, where end-users drive the algorithm training process, as applied towards proactive health care (2007).

MIT Principal Investigator, Lead Vanderbilt University (PI: Buchowski) (NIH NHLBI), "**Physical activity energy expenditure and adolescent obesity.**" A two-year collaboration where House\_n sensors were provided to Vanderbilt researchers for energy expenditure measurement experiments in a room calorimeter (2007).

MIT Principal Investigator, Lead Groden Center (PI: Velicer) (National Alliance for Autism), "**Telemetric Assessment of Movement Stereotypy in Children with ASD.**" A two-year study with the Groden Center, a school for autistic children, and the University of Rhode Island to explore the use of wireless accelerometers for automatic detection of autistic stereotypies (2006).

Principal Investigator (Microsoft Digital Memories (Memex) grant award), "**Integration of Memex and PlaceLab Datasets for Personal Investigations of Health and Living Patterns.**" A one-year study to add Microsoft SenseCam technology to the PlaceLab. The technology has since been added to the BoxLab system used in a current NSF grant (2006).

MIT Principal Investigator, Lead Northeastern University (NIH NLM R21), "**Just in Time Health Information for Exercise Adoption.**" A two-year study with Northeastern University and Harvard University to develop and test a PDA-based system for motivating brisk walking (2005).

MIT Principal Investigator, Lead UNC School of Public Health (Gatorade Seed Funds), "**Development of an Objective Measure of Television Watching.**" A one-year exploratory study with University of North Carolina School of Public Health to adapt a wireless sensor toolkit (MITes) to detect television watching behavior and sedentary activity (2005).

MIT Principal Investigator, Lead Boston Medical Center (NIH NCI R21), "**Context-Sensitive Measurement of Physical Activity.**" A two-year study with Boston Medical Center and Stanford School of Medicine to develop and test sensor technology for measuring physical activity (2004).

Principal Investigator (Intel AIM Grant Program), "**AIM Proposal: Detecting Idle Moments for Proactive Health Activities Using Personal and Environmental Sensors and Interfaces.**" A three-year study on context-aware computing for proactive health care (2003).

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Principal Investigator (NSF), "**ITR: Detecting Activity in Homes with Ubiquitous Sensing to Support Aging in Place.**" A two-year study on activity of daily living (ADL) recognition from home sensors (2003).

**Faculty Award** (IBM). An award to investigate ubiquitous computing technology (2003).

Principal Investigator (NSF), "**ITR/PE: Using context-recognition for preventative medicine in the home.**" A two-year study with Boston Medical Center to develop and test sensors for home activity recognition (2001).

Principal Investigator (Robert Wood Johnson Foundation), "**Measuring and Motivating Stair Use in Public Spaces.**" A one-year study to develop a system to measure and motivate stair use with digital point of decision prompting in a subway station (2002).

### Contracts

Principal Investigator (National Cancer Institute/DCCPS/Applied Research Program), "**Generating a Free, High-Quality Food Product Database using Games with a Purpose.**" A one-year project to demonstrate the viability of using web games to generate a food/nutrition/UPC database that can be used for research and commercial purposes (2010).

### Consultant on Grants

Consultant, Lead Brown University (PI: Grigsby-Toussaint's) (NIH), "**Greenspace, Mental Health and Sleep.**" The goal of my consulting role on this multi-year project will be to provide expertise on measurement of behavior from mobile phones. (2021)

Consultant, Lead Northwestern University (PI: Gershon) (NIH 1U24OD023319 01), "Environmental influences on Child Health Outcomes: Patient Reported Outcomes Research Resource Center Core (ECHO PRO Core) (U24)." The goal of my consulting role on this multi-year project will be to provide expertise on new sensor-enabled behavioral measurement instruments. (2016)

Consultant, Lead Veteran's Administration (PI: Quigley) (VA HSR&D PPO 14-144), "**Mobile Sleep and Pain Intervention for OEF, OIF and OND Veterans.**" The goal of this 1 year project is to pilot test the usability and feasibility of two mobile health technology tools, a mobile sleep monitor for home use and a VA-designed mobile health app for teaching cognitive behavioral skills for reducing chronic insomnia within a self-management program. (2015)

Consultant, Lead EveryFit, Inc. (PI: Albinali) (NIH/NCI Contract), "**COMPASS: Capturing and Analyzing Sensor and Self-report Data for Clinicians and Researchers.**" A three-year project to develop and test a web-based system for the collection and analysis of health-related sensor data. (2013).

Consultant, Lead Columbia University (PI: Wilson) (NIH/NIDA), "**Daily Psychosocial Determinants of ART Adherence in Substance-using Black Men.**" A three-year project to conduct two studies used to develop a daily proactive planning intervention that will be designed to improve medication adherence for substance using HIV+ Black men (2012).

Consultant, Lead EveryFit, Inc. (PI: Albinali) (NIH NCI SBIR Contract HHSN261201100056C), "**A System for Encouraging Adoption of New Methods for Activity Monitoring.**" The goal of this 6 month project is to develop a web-based system (SPADES) for storage and analysis of physical activity data used in physical activity surveillance studies (2011).

### Awards

**International Symposium on Wearable Computers (ISWC) Ten-Year Impact Award.**

Awarded for a paper published in 2007: "Real-time recognition of physical activities and their intensities using wireless accelerometers and a heart rate monitor" (2017).

**UbiComp/Pervasive 10 Year Impact Award.** Awarded for each of two papers published in 2004: "Activity Recognition from User-Annotated Acceleration Data" and "Activity Recognition in the

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Home Using Simple and Ubiquitous Sensors" (2014).

### Service (Editing and Reviewing)

#### IEEE Pervasive Computing

- Associate Editor in Chief (2018-)
- Editorial Board (2015-)
- Co-Guest-Editor "Grand Challenges in Pervasive Computing" issue (November 2021-)
- Co-Guest-Editor "Personal Pervasive Health" issue (July-September 2020)
- Co-Editor (with Anind Dey (-2016) and Jesus Favela) of the Department of Pervasive Health in Pervasive Computing (2012-)

Journal for the Measurement of Physical Behaviour

- Associate Editor (2017-2020)

IEEE Transactions on Big Data

- Invited Special Editor for "Big Data and Ubiquitous Computing" issue (2017)

PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT) (Journal associated with Ubicomp Conference)

- Associate Editor (2016-2017, 2018-2020, 2021-)

Pervasive Health

- Technical Program Committee (2017, 2019, 2020)

Selection Committee for the Graduate Student Travel support for ICAMPAM 2017 (funded by NSF) (March, 2017)

ARDUOUS: International Workshop on Annotation of user Data for Ubiquitous Systems

- Program Committee (2017, 2018, 2019, 2020, 2021, 2022)

International Conference on Persuasive Technology (Persuasive)

- Scientific Program Committee: (2008-2022).
- Technical Program Committee (2006)

Member Boston Physical Activity Collaborative (BPARC) (2016-2020)

Core Faculty Member and Northeastern University host: 2012 mHealth Summer Training Institute (July 29 – August 3, 2012)

International Conference on Diet and Activity Measurement

- Session Chair, "New technologies for monitoring physical activity" (2012)

International Conference on Ambulatory Monitoring of Physical Activity and Movement (ICAMPAM).

- Scientific Committee (2012-2013)

AAAI Fall Symposium on AI for Gerontechnology

- Program Committee (2012)

mHealthSys Workshop

- Technical Program Committee (2011, 2012)

Human Behavior Understanding and Behavioral Change Workshop

- Technical Program Committee (2011)

International Workshop on Frontiers in Activity Recognition using Pervasive Sensing

- Program Committee (2011)

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Mobile Sensing: Challenges, Opportunities and Future Directions Workshop at Ubicomp 2011

- Technical Program Committee (2011)

International Journal of Medical Informatics Special Issue on "Designing for Healthy Living"

- Editorial Team (2011)

Conference on Human Factors in Computing Systems (CHI)

- Associate Chair (User Experience and Usability subcommittee) (2021, 2022)
- Associate Chair Reviewer: (CHI) (2009).

AAAI Fall Symposium on AI in Eldercare

- Technical Program Committee: (2008).

International Conference On Smart Homes and Health Telematics

- Scientific Program Committee: (ICOST) (2008).

European Conference on Ambient Intelligence

- Technical Program Committee: (2007).

International Conference on Ubiquitous Computing (UbiComp)

- Steering Committee (2005-present)
- Technical Program Committee Co-Chair (2005)
- Technical Program Committee: (2007, 2004).

International Conference on Technology and Aging

- Program Committee: (2007).

IMIA Smart Homes and Ambient Assisted Living Working Group (2006).

AAAI Spring Symposium on Argumentation for Consumers of Healthcare

- Organizing Committee Member: (2006).

International Conference on Pervasive Computing (Pervasive)

- Technical Program Committee Member (2005).

IEE International Workshop on Intelligent Environments

- Technical Program Committee Member (2005).

National Academy of Engineering

- Symposium on Frontiers of Engineering Organizing Committee (2005).
- Invited "Smart Homes" Session Co-organizer for the 2014 EU-US Frontiers of Engineering Symposium (2014).

Grant Reviewer

- National Institutes of Health review panel: Mobile Health: Technology and Outcomes in Low and Middle Income Countries (R21) (2014, 2015, 2017)
- Interventions to Prevent and Treat Addictions (IPTA) Study Section ad hoc reviewer (2020)
- National Institutes of Health special panel reviewer (2009, 2010, 2012, 2015 (panel chair)).
- National Science Foundation panels (multiple years)
- ILSI North America Committee on Balancing Food & Activity for Health pilot award on "Innovative Tools for Assessing Diet and Physical Activity for Health Promotion" (2017)
- Northeastern internal Tier 1 grant submission (2016, 2017, 2018)

Conference and Journal Reviewer (2002-present)



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- Reviews for IEEE TITB, ACM Transactions on Computing for Healthcare, IEEE Pervasive Computing, Pervasive Conference, UbiComp Conference, Conference on Human Factors in Computing Systems (CHI), Conference on Computer Supported Cooperative Work, User Interface and Software Technology Conference (UIST), International Symposium on Wearable Computers Conference, Pattern Recognition and Machine Intelligence, Pervasive and Mobile Computing, Persuasive Conference, and Translational Behavioral Medicine: Practice, Policy, and Research Journal, International Conference on Intelligent User Interfaces, Journal of Biomedical and Health Informatics, ARDUOUS: International Workshop on Annotation of user Data for Ubiquitous Systems.

### Service (Peer Reviewed Workshop Organization)

Big Data Opportunities and Challenges in Mobile Health Workshop  
with Wendy Nilsen and Mary Rodgers (NIH), Santosh Kumar (Memphis), and Deborah Estrin (Cornell Tech)  
ACM Conference on Knowledge Discovery and Data Mining (KDD 2014)  
New York, NY, August 2014

New Technology to Assess Physical Activity  
with Patty Freedson (UMass Amherst), Catherine Loria (NIH), Jacqueline Kerr (USCD), and Mingui Sun (U. Pittsburgh)  
ISBNPA Conference  
Austin, TX, May 2012

International Workshop on New Computationally-Enabled Theoretical Models to Support Health Behavior Change and Maintenance  
with D. Spruijt-Metz (USC), Illka Korhonen (Tampere U. of Technology), Niilo Saranummi (VTT Technical Research Centre), and Wendy Nilsen (NIH OBSSR)  
Funded by the National Science Foundation  
Brussels, Belgium, October 2012

How To Do Good Research In Activity Recognition: Experimental Methodology, Performance Evaluation and Reproducibility  
with Paul Lukowicz (Univ. of Passau, Germany) and Jamie A Ward (Lancaster University, UK)  
International Conference on Pervasive Computing (Pervasive Conference) Workshop  
Helsinki, Finland, May 2010

Developing Shared Home Behavior Datasets to Advance HCI and Ubiquitous Computing Research  
with Gregory Abowd (Georgia Tech), Beth Logan (Intel), and Jason Nawyn (MIT)  
CHI Workshop  
Boston, MA, April 2009

Engagement by Design  
with Tim Bickmore (Northeastern), and Sunny Consolvo (Intel)  
CHI Workshop  
Boston, MA, April 2009

Caring Machines: AI in Eldercare  
with Timothy Bickmore (Northeastern), Henry Kautz (Rochester), Karen Haigh (Honeywell Laboratories), and Richard Simpson (University of Pittsburgh)  
AAAI Fall Symposium  
Washington, DC, November 2005

HCI Challenges in Health Assessment  
with Margaret Morris (Intel)  
CHI Workshop  
Portland, OR, April 2005

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Home Technologies to Keep Elders Connected  
with Jay Lundell (Intel) and Margaret Morris (Intel)  
CHI Workshop  
Vienna, Austria, April 2004

Caring Machines: AI in Eldercare  
with Timothy Bickmore (Northeastern), Henry Kautz (Rochester), Karen Haigh (Honeywell  
Laboratories), and Richard Simpson (University of Pittsburgh)  
AAAI Fall Symposium  
Washington, DC, November 2005

HCI Challenges in Health Assessment  
with Margaret Morris (Intel)  
CHI Workshop  
Portland, OR, April 2005

Home Technologies to Keep Elders Connected  
with Jay Lundell (Intel) and Margaret Morris (Intel)  
CHI Workshop  
Vienna, Austria, April 2004

### Service (Committees at Northeastern)

Chair Dept. of Health Sciences Digital Health and Data Justice Hiring Committee (2021-22)  
Co-chair Khoury T/TT Hiring Committee (2020-21)  
Dept. of Health Sciences Digital Phenotyping Hiring Committee (2020-21)  
Bouvé HS/AP School of Public Health Task Force (2019-21)  
University Standing Appeals Committee on Tenure (2020-21)  
Faculty Senate Academic Policy Committee (2015-2017) (Chair, Spring 2017)  
Health Informatics MS Committee (2011-2017)  
Health Sciences Tenure and Promotion Committee (2012-2022)  
PhD Personal Health Informatics Committee (2012-2021) (Chair 2012-8/2017, 9/2018-)  
MS HI and HDA Curriculum Committee (2016-2018)  
CCIS Tenure Committee (2011-2022)  
Khoury Sabbatical Committee (2019-20)  
Khoury Teaching Evaluation Committee (2019-20)  
Director of Digital Health Hiring Committee (Chair 2018-2019)  
Health Sciences Exercise Faculty Committee (2011-2017)  
CCIS Ph.D. Committee (2010-2012, 2015-8/2017)  
Provost's Office Working Group on Obesity Research (2012-2013)  
Health Policy and Law Faculty Working Group (2010-2014)  
Center for Health Policy and Healthcare Research Working Group (2011-2014)  
Personal Health Informatics Hiring Committee (2010-2012)  
MPH committee (2010-2015)  
Exercise Science Hiring Committee (2010-2011)  
School of Nursing Dean Hiring Committee (2013-2014)  
CCIS Hiring Committee (2013-2015)

### Service (Other Northeastern)

Directing the Personal Health Informatics Doctoral Program (2011-8/2017,9/2018-), including

- Policy development (2011-2020)
- Website/advertising (2011-2018)
- Open houses (2012-2021)
- Research track development for MS program (2013-2014)
- Co-directing the PHI Practicum experience (Spring 2013 – 4 students)

Undergraduate Sandbox Club Advisor (2019-21)  
ViTAL Student Club (Presentation at the Digital Health Speaker Series, 2021)  
ViTAL Student Club (Podcast interview, 2021)

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Lead organizer Personal Health Informatics Seminar Speaker Series (Fall 2012, Spring 2013)

Nominated for, and participated in, the Research Leadership Development Initiative (ReDI) (Aug 22-25, and weekly meetings fall 2016, Jan 2017)

### Guest Lectures/Instruction:

- ViTAL's Digital Health Series (2021)
- Bouve PhD Professional Development Seminar Series: Hiring (2016)
- Creation and Application of Medical Knowledge (2015, 2019)
- Theoretical Foundations in Personal Health Informatics (2012,2015, 2016, 2018)
- American Healthcare System (2012, 2013, 2014, 2015)
- Public Health Nutrition Course (September 2011, September 2012, February 2013, February 2014, February 2015)
- Human Computer Interaction (2010)
- Intro to College (2014, 2015, 2016, 2017)
- HLTH 5450 Healthcare Research (2013, 2014)
- Enabling Engineering Student Group (March 20, 2013)

### Health Sciences "Intro to College" Introductory Q&A (2x, 2021)

Health Sciences Admissions Phone-a-thon (December 2012, December 2016)

Media Briefing Personal Health Informatics Luncheon (September 13, 2013)

Health Science Day: Meet prospective students/parents (2014, 2015 2x, 2016 2x)

Khoury MS Graduation (April 2019)

Health Sciences Graduation Ceremony (May 2019)

Guest Speaker, Northeastern University Scholars Seminar, April 2, 2015

Bouvé LLC Residential Life Dinner Presentations (October 11, 2012, February 9, 2012, October 26, 2015, 2017, November 15, 2018)

### Bouve PhD Directors Working Group Meetings (2016-)

### Health Science Program Directors Meetings (2018-)

Bouvé Meet the Researcher Night (January 21, 2016)

SOURCE Cross-College Research and Creative Opportunity Fair (October 8, 2020)

### Presentation at Remote Campus Events:

- Seattle Washington Biotechnology & Biomedical Association Event (September 18, 2014)
- Charlotte Remote Campus Grand Opening (October 30, 2011)

## Publications in Refereed Journals

Dunton, G. F., W. Wang, S. S. Intille, E. Dzubur, A. Ponnada and D. Hedeker, "How acute affect dynamics impact longitudinal changes in physical activity among children." *Journal of Behavioral Medicine*, 2022 (in press).

C. H. Yang, J. P. Maher, A. Ponnada, E. Dzubur, R. Nordgren, S. Intille, D. Hedeker and G. F. Dunton (2021). "An empirical example of analysis using a two-stage modeling approach: Within-subject association of outdoor context and physical activity predicts future daily physical activity levels." *Transl Behav Med* 11(4): 912-920, 2021.

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**Book Chapters**

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W.J. Nilsen, S. Intille, D. Spruijt-Metz, and M. Pavel, "Modeling a Mobile World," Presented at the 2014 International Conference on Social Computing, Behavioral-Cultural Modeling, & Prediction (SBP14), April 1, 2014, Washington DC.

### **Demo Presentations at Refereed Conferences**

S. Hiremath, S. Intille, "mHealth physical activity intervention system for individuals with disability: Physical Activity Intervention System (PAIS)," in the Featured mHealth Technology Session at the mHealth Technology Showcase, Washington, DC, June 4, 2018.

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G.F. Dunton, A.J. Rothman, D. Hedeker, A.M. Leventhal, and S.S. Intille, "Using Intensive Longitudinal Data to Develop Predictive Models of Physical Activity, Sedentary Time, and Sleep: the microT Study," in the Society of Behavioral Medicine 2019 Annual Meeting (Washington, DC), March 2019.

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N. Shoaib, A.M. Amiri, B.T. Chhetry, G. Snethen, M. Schmidt-Read, M.R. Lamboy, S.S. Intille, S.V. Hiremath, “Improving physical activity levels of individuals with spinal cord injury in the community,” extended abstract in Rehabilitation Engineering and Assistive Technology Society of North America's Annual Conference (Washington, DC), July 2018.

S.V. Hiremath, A.M. Amiri, B.T. Chhetry, N. Shoaib, G. Snethen, M. Schmidt-Read, M.R. Lamboy, S.S. Intille, “Mobile-Health based Physical Activity Intervention for Individuals with Spinal Cord Injury in the Community,” in the Paralyzed Veterans of America (PVA) 8<sup>th</sup> Annual Healthcare Summit + Expo (Dallas, TX), August 2018.

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B. Redline, H. Rhoades, S. Intille, G. F. Dunton, and B. Henwood, "Feasibility of using ecological momentary assessment to understand risk environment of homeless and recently-housed young adults," in the American Public Health Association, (Atlanta, GA), November, 2017.

Research Symposium Session: ICAMPAM Symposia on Technology-Assisted Physical Activity Measurement Among Children: Attractions and Pitfalls  
5th International Conference on Ambulatory Monitoring of Physical Activity and Movement (ICAMPAM), June 2017. With A. Lu, T. Baranowski, J.Y. Hwuang, and E. Dzubur

Dunton, G.F., Ke, W., Dzubur, E., Leventhal, A., Huh, J., Margolin, G., Intille, S. Maternal stress and weight-related parenting practices: An Ecological Momentary Assessment study. Presented at the Society of Behavioral Medicine Annual Meeting, San Diego, CA, 2017.

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E. Dzubur, J. Huh, S. Intille, and G.F. Dunton, “Affective and behavioral predictors of compliance to ecological momentary assessment protocols in physical activity studies,” To be presented at 37th Annual Meeting and Scientific Sessions of the Society for Behavioral Medicine, Washington DC, March/April, 2016.

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G. F. Dunton, E. Dzubur, and S. Intille, "A Smartphone Application to Measure Physical Activity using Sensor-Informed Context-Sensitive Ecological Momentary Assessment," presented at the Society for Ambulatory Assessment Conference, May, State College, PA, 2015.

G. F. Dunton, E. Dzubur, A. Leventhal, J. Huh, G. Margolin, T. Gruenewald, C. Koprowski, and S. Intille, "Momentary assessment of within-day effects of maternal stress on children’s eating and activity," presented at the 36th Annual Meeting and Scientific Sessions of the Society for Behavioral Medicine, April, San Antonio, TX, 2015.

G.F. Dunton, E. Dzubur, S. Intille, R. McConnell, and M. Li, “Stress and physical activity in children with asthma: An Ecological Momentary Assessment study,” To be presented at the International Society for Behavioral Medicine and Physical Activity Conference. May. San Diego, CA, 2014.

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G.F. Dunton, E. Dzibur, K. Kawabata, B. Bo, and S. Intille, "Development of a smartphone application to measure physical activity using sensor-informed end of day recall," 35th Annual Meeting and Scientific Sessions of the Society for Behavioral Medicine, Philadelphia, PA, April 2014.

Y. Liao, S. Intille, & G.F. Dunton, "Environment moderates the relationship between momentary affective and physical feeling states and physical activity," 11th Active Living Research Conference, San Diego, CA, March 2014.

Research Symposium Session: Using New Technologies and Modeling Techniques to Understand Health Behavior, Behavior Change, and Maintenance: Findings from an International Workshop mHealth Summit, December, 2013. With W. Nilsen, D. Spruijt-Metz, I. Korhonen, and M. Pavel.

G.F. Dunton, A. Leventhal, Y. Liao, and S. Intille, "Affective response to physical activity differs across contexts: An Ecological Momentary Assessment study," Presented at the American Public Health Association Annual Meeting, Boston, MA, November 2013.

G. Dunton, J. Huh, Y. Liao, E. Tate, S. Intille, "Using Ecological Momentary Assessment to Examine the Interrelations of Affective States and Physical Activity," in a symposium on "Advancements in Ecological Momentary Assessment (EMA) Methods for Health Behavior Research" at the Society of Behavioral Medicine Annual Meeting, 2013.

G.F. Dunton, R. McConnell, M. Jerrett, and S. Intille, "Using Context-Sensitive Ecological Momentary Assessment to Investigate the Effects of the Environment, Stress and Physical Activity on Asthma Symptoms," in a symposium on "Moving Through Space and Time: Using Technology To Improve 'On-the-ground' Assessment and Communication About Health" at the Society of Behavioral Medicine Annual Meeting, 2013.

A. Mannini, A.M. Sabatini, and S.S. Intille, "Human gait detection from wrist-worn accelerometer data," *Gait & Posture*, Volume 37 (Suppl. 1), pp. S26-S27, April 2013.

M. Rosenberger, W.L. Haskell, and S. Intille, "A comparison of seven body locations for measuring sedentary behavior and physical activity with accelerometers," American College of Sports Medicine Annual Meeting, May 2013.

S. Intille, "Combining passive mobile sensing and context-sensitive self-report for activity assessment in intervention studies," as part of the Advancing Objective Assessment of Physical Activity and Sedentary Behavior Symposium (Organizers: Freedson, Staudenmayer, Lyden, and Intille) at the American College of Sports Medicine Annual Meeting, May 2013.

Y. Liao, J. Huh S. Intille, and G.F. Dunton, "Short-term relationships of affective and physical feeling states with physical activity level in naturalistic settings," Society of Behavioral Medicine Annual Meeting, San Francisco, CA, March, 2013.

T.A. Pickering, J. Huh, S. Intille, and G. Dunton, "Relationships between physical activity and the mean and variability in repeatedly-measured behavioral cognition variables," Society of Behavioral Medicine Annual Meeting, San Francisco, CA, March, 2013.

Y. Liao, S. Intille, and G.F. Dunton, "Using ecological momentary assessment to understand where and with whom adults' sedentary and physical activity occurs," the 10th Active Living Research Annual Conference, February, 2013.

Y. Liao, J. Huh, D. Spruijt-Metz, S. Intille, M.A. Pentz, G. Dunton, "Examining the immediate effects of intention and self-efficacy on physical activity among adults: An ecological momentary assessment study", APHA American Public Health Association Annual Meeting, October, 2012.

G.F. Dunton, Y. Liao, S. Intille, D. Spruijt-Metz, and M. Pentz, "Assessing adults' physical activity and sedentary behavior using Ecological Momentary Assessment with mobile phones," American Public Health Association Annual Meeting, October, 2012.

M. Rosenberger, W. Haskell, F. Abinali, S. Mota, J. Nawyn, and S. Intille, "Estimating energy expenditure from accelerometry and physiological sensors in one device," American College of Sports Medicine (ACSM) National Conference, May 2012.

S. Intille, T. Lazenka, K. Bechtel, F. Abinali, S. Mota, B. Kuris, P. Botana, and W.L. Haskell, "Developing context-sensitive ecological momentary assessment on mobile phones: Examples/lessons from pilot projects," in "Using Real-Time Mobile Phone Technologies in Physical Activity and Eating Behavior Research" Symposium, Society of Behavioral Medicine Annual Meeting, April, 2012.

C. Younan, Y. Liao, K. Kawabata, D. Spruijt-Metz, S. Intille, M. Pentz, and G. Dunton, "Using ecological momentary assessment to examine perceptions of safety, aesthetics and physical activity in adults," Active Living Research (ALR) Annual Conference, March, 2012.

M. Rosenberger, W. Haskell, F. Abinali, S. Mota, J. Nawyn, and S. Intille, "A comparison of accelerometer estimates of energy expenditure on the wrist and hip in adults," American Heart Association (AHA) EPI/NPAM Conference, March 2012.

S. Intille, "Prototype mobile phone technology for influencing behavior using real-time measurement and tailored feedback", in "Enabling a lasting active lifestyle in adults" Symposium, New England ACSM Annual Meeting, November 2011.

L. Corsino, B.C. Batch, G. Bennett, H. Bosworth, L. Corsino, S. Grambow, S. Intille, P.-H. Lin, C. Simpson, C. Voils, and L. Svetkey, "Cell Phone Intervention for You (CITY): Randomized Trial of Behavioral Interventions for Weight Loss in Young Adults," in the "Early Adult Reduction of Weight through Lifestyle Intervention (EARLY) Trials; Using Innovative Technologies in Randomized Controlled Trials Targeting Weight Control Among Young Adults" Symposium at Society of Behavioral Medicine Annual Meeting, April 2011.

S. Intille, F. Abinali, S. Mota, A.D. Nguyen, Y. Han, and W.L. Haskell, "Sensor-driven automatic feedback on mobile devices for improving behavioral measurement and intervention: Design experiences from two pilot projects," in "Advances in Information Technology for Increasing Dissemination" Symposium, Society of Behavioral Medicine Annual Meeting, April, 2011.

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G.F. Dunton, Y. Liao, S. Intille, D. Spruijt-Metz, J. Wolch, and M. Pentz, "Investigating children's



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G.F. Dunton, S. Intille, M.A Pentz, A. Tantoushian, and J. Beaudin, "Social and physical contextual influences on children's physical activity levels: An Ecological Momentary Assessment study," Abstract presented at the Active Living Research Annual Conference, February, 2010.

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J. Higa, G.F. Dunton, S. Intille, J. Beaudin, J. Wolch, and M.A. Pentz, "The contexts of children's sedentary activities: Where, with whom, and how do they feel?" Abstract presented at the Active Living Research Annual Conference, February, 2010.

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G.F. Dunton, S. Intille, J. Beaudin, and M.A Pentz, "Pilot test of a real-time data capture protocol to assess children's exposure to and experience of physical activity contexts using mobile phones," Abstract presented at the Annual Scientific Meeting of The Obesity Society, 2009.

M. Rosenberger, W. Haskell, S. Intille, G. Skrinar, and P. Quatromoni, "A comparison of the Actigraph and multiple wireless accelerometers for estimating energy expenditure and classifying activity intensity," Southwest ACSM Conference, October 2009.

T. Bickmore, A. Gruber, and S. Intille, "Just-in-time automated counseling for physical activity promotion," in Proceedings of the AMIA Annual Symposium, 2008. PMID: 18999222.

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S. Intille, J. Herigon, W. Haskell, A. King, J. A. Wright, and R. F. Friedman, "Intensity levels of occupational activities related to hotel housekeeping in a sample of minority women," Abstract presented at The Annual Meeting of the International Society of Behavioral Nutrition and Physical Activity, 2006.

T. Bickmore, A. Gruber, and D. Mauer, "A handheld animated advisor for physical activity promotion," in Proceedings of the AMIA Annual Symposium, 2006. PMID: 17238475.

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S.S. Intille, E. Munguia Tapia, and L. Bao, "Real-time physical activity recognition using multiple wireless accelerometers." Abstract presented at the Scientific Meeting on Objective Monitoring of Physical Activity: Closing Gaps in the Science of Accelerometry, University of North Carolina,

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December, 2004. Winner of a best poster award.

S.S. Intille, "New technology for studying everyday behavior in natural settings." Abstract presented in Symposium on Real World Psychology: Exploring People's Everyday Lives. Proceedings of the Society for Personality and Social Psychology Annual Meeting, January 2004.

### **Paper Presentations at Refereed Workshops**

S.S. Intille, "Cognition for Healthy People: Some Challenges," in Proceedings of the Assisted Cognition Workshop, 2007.

S.S. Intille, "Statement of interest for the Workshop on Monitoring, Measuring, and Motivating Exercise," in Proceedings of the Workshop on Monitoring, Measuring, and Motivating Exercise: Ubiquitous Computing to Support Physical Fitness, UbiComp 2005.

S.S. Intille, "Ubiquitous computing technology for just-in-time motivation of behavior change," in Proceedings of the UbiHealth Workshop, 2003.

S.S. Intille, K. Larson, and C. Kukla, "Just-in-time context-sensitive questioning for preventative health care," in Proceedings of the AAAI 2002 Workshop on Automation as Caregiver: The Role of Intelligent Technology in Elder Care, AAAI Technical Report WS-02-02. Menlo Park, CA: AAAI Press, 2002, pp. 54-59.

S.S. Intille and A.F. Bobick, "Recognizing team plans from visual primitives," in Proceedings of the IJCAI'99 Workshop on Team Modeling and Plan Recognition, 1999.

S.S. Intille and A.F. Bobick, "Representation and visual recognition of complex, multi-agent actions using belief networks," in Proceedings of the IEEE Computer Society Workshop on the Interpretation of Visual Motion, 1998. Also appears in Proceedings of the ECCV '98 Workshop on the Perception of Human Action, 1998.

A.F. Bobick, S.S. Intille, J.W. Davis, F. Baird, L.W. Campbell, Y. Ivanov, C.S. Pinhanez, A. Schütte, and A. Wilson, "Design decisions for interactive environments: Evaluating the KidsRoom," in Proceedings of the AAAI Spring Symposium on Intelligent Environments, AAAI Technical Report SS-98-02, 1998, pp. 7-16.

A.F. Bobick, J.W. Davis, and S.S. Intille, "The KidsRoom: an example application using a deep perceptual interface," in Proceedings of the Workshop on Perceptual User Interfaces, M. Turk, Ed., 1997, pp. 1-4.

S.S. Intille and A.F. Bobick, "Exploiting contextual information for tracking by using closed-worlds," in Proceedings of the Workshop on Context-Based Vision, 1995, pp. 87-98.

### **Dissertation**

S.S. Intille, "Visual Recognition of Multi-Agent Action," Ph.D. Thesis, Media Arts and Sciences, Massachusetts Institute of Technology, Cambridge, MA, 1999.

Committee:

Advisor: Professor Aaron Bobick (MIT Media Lab, USA)

Professor Eric Grimson (MIT AI Lab, USA)

Professor Hans-Hellmut Nagel (University of Karlsruhe, Germany)

Abstract: In this work, a framework for the representation and visual recognition of multi-agent action is presented, implemented, and evaluated. This project's thesis can be stated most succinctly as follows: that many interesting multi-agent actions can be represented and recognized from noisy perceptual data using visually grounded goal-based primitives and explicit but low-order reasoning about temporal relationships. A primary contribution of this work is an analysis of the issues and tradeoffs involved when selecting a representation for multi-agent collaborative action recognition. The input to the system described in this work is trajectories of object movements obtained from real video scenes.

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### Unpublished Technical Reports

S.S. Intille and A.M. Intille, "New challenges for privacy law: Wearable computers that create electronic digital diaries," Massachusetts Institute of Technology, Cambridge, MA, MIT Dept. of Architecture House\_n Project Technical Report, 2003.

S.S. Intille, C. Kukla, B. Stigge, and L. Bonanni, "Merging the physical and digital in ubiquitous computing environments," Massachusetts Institute of Technology, Cambridge, MA, MIT Dept. of Architecture House\_n Project Technical Report, 2001.

R. Khalaf and S. S. Intille, "Improving multiple people tracking using temporal consistency," Massachusetts Institute of Technology, Cambridge, MA, MIT Dept. of Architecture House\_n Project Technical Report, 2001.

### Other Publications

S.S. Intille, "Preface," in Handbook of Ambient Assisted Living: Technology for Healthcare, Rehabilitation and Well-being - Volume 11 of Ambient Intelligence, M. Huch, A. Kameas, J. Maitland, P.J. McCullagh, J. Roberts, A. Sixsmith, R. Wichert, J.C. Augusto (Eds), IOS Press, 2012.

S.S. Intille and A.F. Bobick, "Le suivi visuel à l'aide des mondes clos," in Proceedings of the Informatique et Sports Collectifs, 1999, pp. 31-56. (translated to French).

S.S. Intille, "Sport online," <http://www.media.mit.edu/~intille/papers/sp.html>, 1996.

S. S. Intille, "Tracking Using a Local Closed-World Assumption," S.M. Thesis, Media Arts and Sciences, Massachusetts Institute of Technology, Cambridge, MA, 1994.

### Invited Participation as Expert Panelist or Consultant

Invited Expert Panel Member  
2021 IEEE International Conference on Digital Health (ICDH) panel on Intensive Longitudinal Assessment  
Virtual, September 8, 2021

Invited Expert Panel Member  
2019 Technology in Psychiatry Summit: The Future of Mental Health Across the Lifespan  
McLean Hospital Institute for Technology in Psychiatry  
Boston, MA, October 8, 2019

Invited Expert Panel Moderator  
Using Technology to Prevent Childhood Obesity” Federal Challenge  
Health Resource Service Administration’s (HRSA’s) Maternal and Child Health Bureau (MCHB)  
Rockville, MD, 2019, September, 2019

Invited Expert Panel Moderator  
Promises and Perils of Emerging Health Innovations  
Annual Health Law Conference  
Northeastern, University, April, 2019

Invited Expert Panel Member: Process of establishing validation and standardization of wearable device measures  
Wearable Devices & the 24-hour Activity Cycle: A Framework for Developing Daily Activity Recommendations Workshop  
Stanford University  
Stanford, CA, April 27-28, 2016

Expert participant  
NIH Workshop on Canine Aging  
University of Washington, Dec 1, 2015 (Virtual participation)

## Stephen S. Intille Curriculum Vitae

### Expert consultant

Federal Highway Administration Exploratory Advanced Research (EAR) Program's initial stage investigation into wearable sensors for public-sector transportation research  
Fall, 2015

### Expert Judge, Hacking Eating Tracking

Harvard Medical School  
Cambridge, MA, September 19, 2015

### Panelist: I'm Directing My Health: Embracing Personal Health Informatics in the New Era of Wellness

Washington Biotechnology & Biomedical Association  
Seattle, WA, September 18, 2014

### Panelist, "Panel XI: Someone to Watch Over Me: Mobile Device Research and the Sense of the Self"

2013 Advancing Ethical Research Conference  
Hynes Convention Center, Boston, MA, November 9, 2013

Invited Expert, National Cancer Institute Big Data and Theory Advancement Workshop  
Bethesda, MD, September 19-20, 2013

### Panelist: The Future of Health IT for Behavioral Health on the topic of Computational Sensing & Machine Learning

Technology Innovations for Substance Use and Mental Health Disorders Conference (Hosted by the Office of National Drug Control Policy)  
White House Eisenhower Executive Office Building, Washington, DC, September 16, 2013

Invited Expert, National Cancer Institute Science of Research and Technology Branch Meeting  
Bethesda, MD, February 12, 2013

### Panelist

Symposium on the Innovative Use of Technology in Behavioral Health Care  
Northeastern University, September 24, 2012

### Can Smartphone Apps Change Our Behavior (expert guest)

Radio Boston WBUR Radio Show  
May 30, 2012

### Expert Panel Member

Active Transportation Expert Panel Meeting  
Centers for Disease Control and Prevention  
February 27-28, 2012

### Invited Panelist

1st IEEE EMBS Unconference on Wearable and Ubiquitous Technology for Health and Wellness  
Boston, MA, August 30, 2011

### Science of Sedentary Behavior (discussion leader)

Stanford Center for Longevity  
Stanford, CA, July 15-16, 2010

### mHealth Barriers Workshop: Reducing Barriers to Mobile Technology Usage in Behavioral and Social Science Research

National Institutes of Health  
Bethesda, MD, June 7-8, 2010

## Stephen S. Intille Curriculum Vitae

Objective Measurement of Physical Activity Conference: Best Practices and Future Directions  
NIH and the American College of Sports Medicine (ACSM)  
Bethesda, MD, July 20-21, 2009

Persuasive Technologies (expert guest)  
NPR Science Friday  
March 7, 2008

National Academies Keck Futures Conference on Extending the Human Healthspan  
Selected participant  
Irvine, CA, November, 2007

Panel: New Technologies for Energy Balance Measurement and Intervention Research  
Food and Nutrition Conference & Exposition (FNCE)  
Philadelphia, PA, October 2, 2007

Health e-Technologies Initiative RWJF Childhood Obesity Grant  
Expert panelist  
Summer and Fall, 2006

UCSD e/Balance Phase 1 NCI SBIR  
Consultant  
2005-2006

### Invited Talks or Symposiums

Invited Speaker  
“Signaligner Pro”  
Technology in Psychiatry Online Summit  
October 29, 2020

Invited Symposium on “Novel Methods for Capturing Subjective Intensive Longitudinal Data within Long term Epidemiological and Intervention Studies” in the 41st Annual Meeting & Scientific Sessions of the Society of Behavioral Medicine (San Francisco, CA), April 2019.

Invited Speaker  
“Improving Behavioral Measurements from Mobile Devices”  
MD2K Center of Excellence for Mobile Sensor Data-to-Knowledge Webinar  
December 7, 2017

Invited Speaker  
Improving Behavioral Measurements from Mobile Devices  
Tufts CTSI Translational Research Day (Sensors, Devices, and Biomarkers)  
Boston, MA, November 14, 2017

Invited Speaker and Expert Panelist  
Tech Day  
21st International Association of Gerontology and Geriatrics (IAGG) World Congress  
San Francisco, CA, July 26, 2017

Invited Teleconference Presenter  
“mHealth Research Group”  
Boston Physical Activity Resource Collaborative (BPARC)  
July 13, 2017

Invited Speaker  
“Measuring behavior using mobile technology and micro ecological momentary assessment”  
Innovations in Behavioral and Social Health Sciences (i-BSHS) Lecture  
Brown University School of Public Health

## Stephen S. Intille Curriculum Vitae

Providence, RI, November 4, 2016

### Invited Speaker

“Measuring Behavior and Motivating Health Behavior Change Using Mobile Technology: Opportunities and (Difficult) Challenges”

UConn Center for Health and Prevention (CHIP)  
Storrs, Connecticut, April 14, 2016

### Invited Speaker

Annual Gershoff Symposium  
Tufts University Friedman School of Nutrition Science and Policy  
Boston, MA, April 8, 2016

### Invited Speaker and Panelist

“How to Apply Big Data and Analytics to Food Intake Measures at Population and Individual Levels”

Big Data and Innovative Approaches to Understanding Dietary Patterns and Health  
ILSI North America Special Conference at the Experimental Biology Conference  
San Diego, CA, April 2, 2016

### Invited Speaker

Standing Up To Sedentary Behavior: Sedentary Behavior Conference  
Urbana-Champaign, Illinois, October 16, 2015

### Invited Speaker

BostonCHI  
Cambridge, MA, October 13, 2015

### Invited Speaker

Precision Medicine Initiative Workshop: Public workshop on unique scientific opportunities for the national research cohort  
National Institutes of Health  
Bethesda, MD, April 28-29, 2015

### Invited Speaker and Panelist

Committee on Evaluating Approaches to Assessing Prevalence and Trends in Obesity Data  
Gathering Workshop  
National Academies of Sciences, Engineering, and Medicine  
Washington, DC, July 28, 2015

### Invited Speaker

Advancing Wellbeing Speaker Series  
MIT Media Laboratory  
Cambridge, MA, February 26, 2015

### Invited Speaker

Motivation and Technology in Physical Activity Meeting  
(Sponsored by the Danish Diabetes Association)  
University of Copenhagen  
Copenhagen, Denmark, January 8, 2015

### Invited Speaker

NUCare – Northeastern University Center for Self Care & Health Speaker Series  
Northeastern University  
Boston, MA, December 1, 2014

### Invited Speaker

## Stephen S. Intille Curriculum Vitae

New Vistas in Emotion and Technology  
Northeastern University  
Boston, MA, January 31, 2014

Invited Speaker  
E-tools and Social Networks for Epidemiology International Colloquium  
Cité Internationale Universitaire, Paris, France, May 21, 2013

Invited Speaker  
MIT Course HST 936: Global Health Informatics to Improve Quality of Care  
Cambridge, MA, April 12, 2013

Invited Keynote Speaker  
International Conference on Ambulatory Monitoring of Physical Activity and Movement  
(ICAMPAM 2013)  
Amherst, MA, June 2013

Invited Keynote Speaker  
“Towards Population Scale Measurement of Physical Activity and Sedentary Behavior”  
Gait and Clinical Movement Analysis Society Annual Meeting  
Cincinnati OH, May 15, 2013

Invited Speaker  
“Opportunities to Use Real-time Feedback for Intervention Development”  
Centers for Population Health and Health Disparities Annual Meeting  
Boston, MA, May 1, 2013

“Food Lord: Generating a Free, High-Quality Food Product Database using Games with a Purpose”  
Invited Speaker: Nutrition Games Track  
Games for Health Conference  
Boston, MA, June 2012

B.F. Skinner Lecturer  
Association for Behavior Analysis International (ABAI) Annual Meeting  
Seattle, WA, May 27, 2012

Invited Speaker  
Session: "New technologies for monitoring physical activity"  
The International Conference on Diet and Activity Measurement  
Rome, Italy, May 2012

Invited Speaker  
Center for Technology and Behavioral Health, Dartmouth University  
Hanover, NH, May 3, 2012

Invited Speaker: “New Technology (using a mobile phone) to Assess Physical Activity Behavior”  
Measurement & Evaluation (M&E) Council at American Alliance for Health, Physical Education,  
Recreation, and Dance (AAHPERD)  
Boston, MA, March 13, 2012

Invited Speaker on “Emerging Technologies for Measuring Individual Exposomes”  
National Academy of Sciences  
Washington, DC, December, 2011

Invited presentation  
MD Anderson Cancer Research Center  
Houston, TX, December, 2010.

## Stephen S. Intille Curriculum Vitae

### Invited Speaker

Research Society on Alcoholism 2010 Satellite Symposium  
NIH NIAAA  
San Antonio, TX, June 25, 2010

### Invited Presentation

Second IEEE Workshop on Interdisciplinary Research on E-health Services and Systems  
Montreal, QC Canada, June 14, 2010  
(Presentation made by Dr. Fahd Albinali)

### Keynote Speaker

Pervasive Health International Conference  
Dublin, Ireland, May 2011.

### Invited Symposium Speaker

3rd International Congress on Physical Activity and Public Health  
Toronto, Canada, May 5-8, 2010

### Invited Colloquia Speaker

Department of Preventive Medicine, Northwestern University  
Chicago, IL, March 16, 2010

Workshop on New Frontiers in Measurement: Phenotypes, Endophenotypes, and Envirotypes for  
Genetic and Behavioral Studies of Nicotine Dependence  
NIH Office of Behavioral and Social Sciences Research (OBSSR)  
Baltimore, MD, February 24, 2010

American Public Health Association Annual Meeting  
Philadelphia, PA, November, 2009

Facilitating Interdisciplinary Research: Methodological and Technological Innovation in the  
Behavioral and Social Sciences  
National Institutes of Health  
Bethesda, MD, October, 2009

Science of Behavior Change  
National Institutes of Health  
Bethesda, MD, June 15-16, 2009

International Conference on Dietary and Physical Activity Assessment Methods (ICDAM)  
Washington, DC, June 2009

Keynote: Persuasion, Sensors, and Everyday Life: Some Challenges  
The Fourth International Conference on Persuasive Technology  
Claremont, CA, April, 2009

Invited Talk: Science Meeting on Physical Activity and Substance Abuse  
National Institute of Drug Abuse, National Institutes of Health  
Bethesda, MD, June 5-6, 2008

Invited Talk: Emerging Mobile Technologies for Health Monitoring  
In session: New Technologies for Energy Balance Measurement and Intervention Research  
Food and Nutrition Conference and Expo (FNCE)  
Philadelphia, PA, October 2, 2007

Invited Talk: Using Technology to Support Preventive Care Outside of the Hospital



## Stephen S. Intille Curriculum Vitae

HomeCentric Industrial Liaison Conference  
Cambridge, MA, September 25, 2007

Instructor: 3rd IEEE-EMBS International Summer School and Symposium on Medical Devices and Biosensors  
Boston, MA, September 4-5, 2006

Create New Business Models By Making Health Fun  
Healthcare Unbound: A Conference & Exhibition on the Convergence of Consumer and Healthcare Technologies  
Boston, MA, July 17-18, 2006.

Keynote: The Goal: Smart People, Not Smart Homes  
International Conference on Smart Homes & Beyond (ICOST 2006)  
Belfast, UK, June, 2006.

Invited Talk: Using Ubiquitous Computing Technology to Create Smart People, Not Smart Homes  
Duke University  
Durham, NC, April 10, 2006.

Using a Live-In Laboratory to Study Novel Proactive Health Technologies  
Distributed Diagnostics and Home Healthcare Conference  
Washington, DC, April 3, 2006.

Invited Talk: The PlaceLab  
Harvard University AI Group  
Cambridge, MA, March 16, 2006.

Honorary Gilbreth Lecture: Ubiquitous Computing Technologies to Encourage Aging in Place  
National Academy of Engineering Annual Meeting  
Washington, DC, October 9, 2005.

Invited Demonstration of Technology: Wearable and Home-Based Sensors to Foster Independence  
National Commission for Quality Long-term Care  
Washington, DC, July 22, 2005.

Consumer-Based Health Tracking Using Sensor-Enabled Homes and Phones  
Smart Homes and Smart Phones: Emerging Clinical and Business Models  
Boston, MA, July 12, 2005.

Keynote Address: Proactive Health Systems for the Home Using Ubiquitous and Wearable Computing  
Healthcare Unbound: A Conference & Exhibition on the Convergence of Consumer and Healthcare Technologies  
Boston, MA, July 11-12, 2005.

Tools for Studying and Developing Context-Aware, Proactive Health Systems for the Home  
Intel Corporation  
Hillsboro, OR, April 9, 2005

Innovative Technology to Advance eHealth Measurement and Methods  
Critical Issues in eHealth Research Conference  
Sponsored by the National Cancer Institute  
Bethesda, MD, June 9-10, 2005

Real-Time, Automatic Activity Recognition from Accelerometers: Challenges and Health Applications

## Stephen S. Intille Curriculum Vitae

University of Massachusetts  
Amherst, MA, March 21, 2005

Tools for Studying and Developing Just-in-Time Proactive Health Technologies  
Stanford School of Medicine  
February 9, 2005

Tools for Studying and Developing Context-Aware Systems for the Home  
Intel Research Berkeley  
February 8, 2005

Ubiquitous Computing Technologies to Encourage Aging in Place  
Japan-America Frontiers of Engineering Symposium  
(Sponsored, in part, by the National Academy of Engineering)  
Keihanna, Japan, November 2004

Panel: Video Visions of the Future: A Critical Review  
With Eric Bergman, Arnold Lund, Hugh Dubberly, Bruce Tognazzini  
CHI 2004  
Vienna Austria, April 2004

Keynote Address: Ubiquitous Computing Technologies to Encourage Aging in Place  
Healthcare Unbound: A Conference & Exhibition on the Convergence of Consumer and Healthcare  
Technologies  
Cambridge, MA, July 8-9, 2004.

Tools for Studying and Developing Context-Aware Systems for the Home  
IBM Research  
Yorktown, NY, May 24, 2004.

Technology Demonstration  
Center for Aging Services Technologies (CAST) Congressional Demo  
Washington, DC, March, 2004

Technological Innovations Real-Time Data Capture  
National Cancer Institute Working Group Meeting: Capturing Physical Activity and Diet in Real-  
Time  
Arlington, VA, January 22, 2004.

Tools for Studying and Motivating Health Behavior Change in Natural Settings  
Boston Medical Center  
Boston, MA, December 17, 2003.

Tools for Studying and Developing Context-Aware Systems for the Home  
Boston University  
Boston, MA, November 6, 2003.

Technological Innovations  
The Science of Real-Time Data Capture Self-Reports in Health Research Conference  
Charleston, SC, September 2003.

Keynote: Designing and Evaluating Technology for Supportive Homes  
IEEE/ASME International Conference on Advanced Intelligent Mechatronics  
Kobe, Japan, July 2003

Preventive Health Care  
eHealth Institute's eHealth Developers' Summit

## Stephen S. Intille Curriculum Vitae

Tempe, Arizona, November 2002

Future Computing Environments and Proactive Health Care  
Center for Future Health, University of Rochester  
Rochester, NY, October 2002

The House\_n Living Laboratory  
Greater Boston SIGCHI  
Boston, MA, September 2001

Designing Perceptually-Based Interactive Environments  
Brandeis University  
Waltham, MA, March 1999.

Adaptive Interfaces Entrepreneurial Workshop Case Presentation  
The Harvard Cyberposium  
Cambridge, MA, February 1998.

Sports and Technology: Dynamic Scene Understanding  
The National Institute of Sport and Physical Education (INSEP), Campus Olympique  
Paris, France, June 1996.

### **Invited Workshop Participation**

Invited Speaker and Demo, UCSF Outreach Event and BD2K Consortium PI Meeting:  
Crowdsourcing & Interactive Digital Media, San Francisco, CA, March, 2018.

Invited Expert, Computing Community Consortium and National Science Foundation's Computing  
Visions 2025 Workshop, Arlington, VA, January 22-23, 2015.

Invited Expert, Computing Community Consortium and National Science Foundation's Extensible  
Distributed Systems Workshop, Arlington, VA, January 21-22, 2015.  
(Panelist on Analytics panel)

Invited Expert Panelist  
Office of Disease Prevention (ODP), National Institutes of Health Workshop on "Physical Activity  
and Disease Prevention Research Gaps and Goal-Setting: How Do We Get More People Moving  
More?"  
Bethesda, MD, December 2012

Invited Expert Participant  
NCI Workshop on Emotion and Stress  
Washington, DC, April 2012

Invited Panel Speaker  
Workshop on Interactive Systems in Healthcare  
Washington, DC, October 22, 2011

Invited session moderator at the CIMIT Innovation Workshop, Massachusetts General Hospital,  
April 26, 2011.

Making a Difference: Connecting Innovators in Elder Care  
Massachusetts General Hospital Geriatric Medicine Unit and CIMIT  
Boston, MA, June 2008

Working Group Conference: "Living Laboratory of Aging"  
Hebrew SeniorLife / BIDMC  
Brookline, MA, 2008

## Stephen S. Intille Curriculum Vitae

Home of the Future ... Healthcare Without Walls  
CIMIT Senior Advisory Think Tank  
Cambridge, MA, 2004

MGPO Office of the Future  
CIMIT  
Cambridge, MA, 2004

MIT/GM HVI Workshop (Vehicle of the Future)  
Detroit, MI, October 2003

### Advisory Boards

Invited Expert Advisor  
Using Technology to Prevent Childhood Obesity” Federal Challenge  
Health Resource Service Administration’s (HRSA’s) Maternal and Child Health Bureau (MCHB)  
2018-2020

Invited Member of the IEEE Computer Society ad hoc Committee on the topic of Digital Health  
(2019)

Invited Expert Consultant, Research Coordinating Center for the NIH’s Intensive Longitudinal  
Health Behavior Network , Pennsylvania State University, PI: Chow (2018-2022).

Scientific Advisory Board Member and member of “expert team” working group on emerging  
technologies, Center for Technology and Behavioral Health, Dartmouth University, PI: L. Marsch  
(2012-2016, renewed 2016-2021 with roles as advisory consultant for the Core on Emerging  
Technologies and Data Analytics (PI: Kotz))

Member of Working Group and External Advisor to the Process of Care Research Branch, National  
Cancer Institute (2014)

Expert Working Group member for the Process of Care Research Branch within the Behavioral  
Research Program in the Division of Cancer Control and Population Sciences, National Institutes of  
Health (2013-2014)

Expert Advisory Panel Member, National Cancer Institute’s Science of Research and Technology  
branch (2012-2014)

NIH and the National Cancer Institute (NCI) Planning Committee for a Repository for Algorithm  
Development for Ambulatory Research (RADAR) (2012-2014)

Steering Committee Member, European research project: UBhave Project: Ubiquitous and social  
computing for positive behaviour change, PI: Y. Yardley, U. of Southampton. (2011-2015)

### Teaching - Courses

**Northeastern HSCI 4740: Health Science Capstone: Active Transportation via Cycling**  
A new senior-level undergraduate seminar capstone course, where all students work on inter-related  
projects under the umbrella of a single academic theme. Spring 2022.

**Northeastern HONR 3310: Creating the Future: Transforming Healthcare with Mobile  
Health (mHealth).** A redesigned project-based undergraduate interdisciplinary honors course that  
provides an introduction to mobile health and its impact on health and wellness. Fall 2021 (11 UG).

**Northeastern IS 4300 and CS 5340: Human/Computer Interaction**  
Project-based undergraduate (IS 4300) and graduate (CS 5340) introduction to topics in human-  
computer interaction, with projects targeted in the health domain. Spring 2020 (28 UG, 17 G  
students), Spring 2021 (39 UG, 26 G).

**Northeastern IS 4800 / CS 6350: Empirical Research Methods in Information Science**

An introductory course on methods for conducting empirical research within the field of information science. These methods help provide objective answers to questions about the usability, effectiveness, and acceptability of systems and their impact on individuals, work groups, organizations and society. Fall 2019 (13 UG, 4 G).

**Northeastern DS 2001: Programming with Data (Health Practicum)**

A new transdisciplinary introductory programming and project-based course co-taught between Khoury College of Computer and Information Sciences and Bouvé College of Health Sciences, where students learn Python programming with data with an emphasis on health data. Fall 2018 (13 UG), Spring 2019 (14 UG), Fall 2019 (two sections, 18 UG total), Fall 2020 (11 UG), Spring 2021 (10 UG).

**Northeastern HINF 5300: Personal Health Interface Design & Development**

A new transdisciplinary project-based course on the design of personal health interfaces; the first offering focused on reinventing healthcare with Google Glass technology. Fall 2013 (8 UG, 13G students, co-taught with Rupal Patel), Fall 2014 (2 UG, 14 G), Fall 2015 (11 G), Fall 2016 (11 G), Fall 2017 (12 G), Fall 2019 (7 G).

**Northeastern HINF 5301: Personal Health Technologies: Field Deployment and System Evaluation**

A new transdisciplinary project-based course on the evaluation of personal health informatics systems. Spring 2014 (Co-taught with Rupal Patel)

**Northeastern CS 4520 (UG)/ CS5520 (G): Mobile Application Development**

A new and intensive, project-based course on the design and development of Android mobile applications, where projects are targeted in the health domain. Summer 2011 (17 UG, 15 G students), Fall 2012 (9 UG, 46 G students), Spring 2013 (13 UG, 22 G + 1 G directed study), Fall 2013 (13 UG, 21 G), Spring 2014 (14 UG, 15 G), Fall 2014 (4 UG, 18 G), Spring 2015 (18 UG, 18 G), Spring 2016 (14 UG, 28 G), Spring 2017 (15 UG, 23 G).

**Northeastern CS 5340: Human/Computer Interaction**

Project-based graduate introduction to topics in human-computer interaction, with projects targeted in the health domain. Spring 2012 (13 G students)

**Northeastern PHTH 5228: Advances in Measuring Behavior**

A new survey and project-oriented course examining current and emerging methods of measuring human behavior known to impact human health. Discusses some of the most common instruments used to measure everyday behaviors and considers how emerging technologies may change how these behaviors are measured in the future. Fall 2011 (1 UG, 3 G students), Spring 2013 (2 UG, 2 G), Spring 2014 (3 G), Spring 2015 (1 UG, 3 G), Spring 2016 (8 G).

**MIT 4.208: Designing Persuasive Environments and Technologies**

A new multi-disciplinary graduate seminar course on the development of computer technologies and ubiquitous computing environments that measure and motivate behavior change. (2002-04).

**MIT 4.208: User Interface Design Studio**

A new undergraduate and graduate course for computer scientists, engineers, architects, and designers teaching methods of user interface design applied to next-generation physical and digital environments and future interactive user interfaces. (2000-01).

**MIT 4.185: Home/Community of the Future**

Co-taught with K. Larson. Multi-disciplinary graduate seminar. Taught sessions on technology and computational sensing. (1999).

Teaching -

**NIH K23 Mentored Patient-Oriented Research Career Development Award Investigator**

Advising

**Mentor:** Shanthani Kasturi (Tufts) (2021-2026)

**Postdocs:** Fahd Albinali (2008-2010), Jonathan Lester (2010).

**Research Staff:** Jason Nawyn (2008-2011), Yi Han (2010), Jennifer Beaudin (2003-09).

**Graduate Students (advising/co-advising):** Binod Thapa Chhetry (NU PHI Ph.D., current), Jixin Li (NU PHI Ph.D., current), Rithika Lakshminarayanan (NU PHI Ph.D., current), John (Jack) Hester (NU PHI Ph.D., current), Aditya Ponnada (NU PHI Ph.D., 2021), Qu Tang (NU COE Ph.D., 2021),

Navid Akbar (NU PHI Ph.D., mentor Fall 2018), Aida Ehyaei (NU COE Ph.D. 2014-2016), Stephen Flaherty (NU PHI Ph.D., 2013-14), Shang Ma (NU PHI Ph.D., 2013-2014), Yifei Sun (NU ECE MS 2013), Tony Lazenka (NU CS MS 2013), Selene Mota (MIT Computation and Design, Ph.D.), Anh Dang Viet Nguyen (MIT EECS M.Eng. 2011), Ned Burns (MIT MAS S.M., 2010), Clay Williams (MIT EECS M.Eng. 2009), Hyon Lee (MIT EECS M.Eng. 2009), Emmanuel Munguia Tapia (MIT MAS Ph.D. 2008, MAS S.M. 2003), Randy Rockinson (MIT MAS S.M. 2008), Kenneth Cheung (MIT Arch S.M. 2008), Manu Gupta (MIT MAS S.M. 2008), Louis Lopez (MIT EECS M.Eng. 2005), Jason Nawyn (MIT MAS, 2005), Pallavi Kausik (MIT MAS, 2005), Joyce Ho (MIT EECS M.Eng. 2004), Jacob Hyman (MIT EECS M.Eng. 2003), Ling Bao (MIT EECS M.Eng. 2003), John Rondoni (MIT EECS M.Eng. 2003), Reid Williams (MIT EECS M.Eng. 2003), Neil Chungfat (MIT EECS M.Eng. 2002), Rania Khalaf (MIT EECS M.Eng. 2001), Joseph Su (MIT MechE S.M. 2001), Byron Stigge (MIT Arch S.M. 2001).

**M.S. thesis reader:** Charlie DeTar (MIT MAS, 2009), John Moore (MIT MAS, 2009), Sean Wheeler (MIT MAS 2009), Karen Liu (MIT MAS, 2004).

**MS capstone advisor:** Stephanie Santana (NU HS, 2016-2017), Caitlin Haynes (NU HS, 2015)

**Non-thesis students mentored with publications:** Dharam Maniar (NU CS MS, 2014-2016), Rahul Verma (2015), Bin Bo (NU CS MS 2014), Tricia Povilonis (NU EXCS MS, 2014)

**Ph.D. Committee:** Maciej Kos (NU PHI, 2021-), Herman Saksono (NU Khoury, 2020), Lazlo Ring (NU CCIS, 2017), Mansoor Pervaiz (NU PHI, -), James Lin (NU CCIS, 2015), Laura Pfeifer (NU CCIS, 2012-2013), Shyamal Patel (NU COE, 2012), Ari Benbasat (MIT MAS, 2004).

**Ph.D. Exam Committee:** Mansoor Pervaiz (NU PHI, 2016), Zessie Zhang (NU PHI, 2015), Mansoor Pervaiz (NU PHI, 2015)

**External Ph.D. Committee:** Eldin Dzubur (USC, 2017), Andrea Mannini (Scuola Superiore di Studi Universitari e di Perfezionamento CS, 2013), Shivayogi Hiremath (Pittsburgh, 2011-13), Cory Cornelius (Dartmouth, 2012-2013).

**Visiting or special students:** Andrea Mannini (2012), Vincent Zheng (2010), Noah MacNeil (2009), Bruno Lepri (2008), Aydin Oztoprak (2008), Antonio Rodriguez (2008), Till Pieper (2006), Jon Lin (2002), Joachim Bottger (2000)

**Senior project advisor:** MIT EECS Senior projects: Matthew Marshall (MIT EECS 2010), Pamela Hollingsworth (MIT EECS 2006), Bill Walsh (MIT EECS 2006), Alex Mekelburg (MIT MechE, 2005).

**NU undergraduate honors capstone advisor:** Kyleigh Watson (NU Health Sciences, 2021-22), Aiden Baglivo (NU Health Sciences, 2020-21)

**NU undergraduate research co-op students:** Tess Willinger (NU Health Sciences, 2022), Aiden Borts (NU Health Sciences, 2021), Evan Andre (NU Khoury, 2021)

**NU undergraduate research students:** Spencer Franklin (NU CCIS 2017), Max Rais (NU CCIS 2017), Anne Smithy (NU HS 2017), Roger Cornell (2015), Daniel Speroni (2014), Kati Philips (2012), Vy Nguyen (2012).

**NU undergraduate independent major advisor:** Brenna Sorkin (2016-7)

**MIT undergraduate research students:** Cynthia Lu (2010), Alec Poitzsch (2010), Molly McShane (2010), Matt Falk (2009), Peter McKee (2009), Tobe Nwana (2009), Anh Dang Viet Nguyen (2008), David Wen (2007), Aiko Nakano (2006), Elejo Ocholi (2005-2006), Melinda Tang (2005), Leevar Williams (2005-2006), Mikala Streeter (2006), Kevin Luu (2005), Qian Wang (2005), Dan Guarda (2004), Amanda Seybold (2004), Christina Hawkes (2004), Armando Valdes Samaniego (2003), Jesse Lacika (2003), Michael Ehrenberg (2003), Vivienne Lee (2002-2003), Peter Sung (2003), Sachin Gupta (2003), Tian He (2003), Alan McConnel (2003), Waseem Bakr (2002-2003), Isaac Rosmarin (2002), Folu Okunseinde (2001-2002), Brian Theisen (2001), Jacob Kitz (2000), Anthony Hui (1999), Kamal Mokeddem (1998), Qian Wang and Nick Lesica (1997-1998), Ann Bui and Andreas Argyriou (1995), and Salil Pitroda (1994).

**Other undergraduate research students:** Lana Roskin (Wellesley, 2010), Collette Whitaker (Wellesley, 2009), Shyam Srinivasan (CalTech, 2008), Katie Zarroli (Wellesley, 2006), Alex

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Higuera (2006).

**Internships:** Anmol Sakarda (Summer 2017, Summer 2018), David Cheff (2005-2006), Evelyn Kapusta (2003), Isabel Ancona (2002), Meghann Evershed (2002), Suzanne Seale (2002).

**Northeastern directed/independent study courses:** Rohan Joshi (CS, Spring 2014), Rebecca Joachim (HS, Fall 2012), Kati Philips (HS, Fall 2012)

### Teaching - Peer-Reviewed Seminar Courses

SIGGRAPH course: "Building Interactive Spaces" (with C. Pinhanez)  
Summer 2002 (full-day) and 2003 (half-day).

### Teaching - Seminars

MIT Independent Activities Period '04  
Visions of the Future: Screening and Making Concept Videos.

MIT Independent Activities Period '03  
Movie Making: Inventing the Future of Ubiquitous Computing.

MIT Independent Activities Period '02  
Designing a User Interface "Age Suit."

MIT Independent Activities Period '01  
Hack a Home of the Future Computer Interface.

MIT Independent Activities Period '00 lunchtime seminar series  
Inventing a Home of the Future.

### Teaching - Other Experiences

Participant, Designing a Flipped or Hybrid Course, Northeastern University CATL, July 25 and Aug 1, 2016

Core faculty, NIH mHealth Summer Training Institute, 2012.

Occasional guest lectures in MIT Media Laboratory courses (2004-2010).

Taught occasional graduate seminar class meetings on topics in computer vision (1993-1999).

### Non-Academic Interests

Cooking, canine clicker training, Zwift racing, hiking and other outdoor activities.

### Citizenship

United States of America